



Michigan Department of Agriculture

Training Program for the Professional Food Service Sanitarian

Module 2: Introduction to the Food Service Industry

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Food Service Industry Facts & Figures



Restaurant Industry Forecast 2002 – Executive Summary

The National Restaurant Association has projected sales growth factors, labor, economic issues, along with regional highlights for 2002 at http://www.restaurant.org/pdfs/2002_forecast_execsummary.pdf

Restaurants – First in Daily Customer Contact

- Almost half of all adults (46%) were restaurant patrons on a typical day during 1997.
- In an average month, 78% of U.S. households use some form of carryout or delivery.
- Almost 50 billion meals are eaten in restaurants and school and work cafeterias each year.

Restaurants – An Integral Part of Our Nation's Economy

- Restaurant-industry sales are forecast to advance 5% in 2000 and equal more than 4% of the U.S. Gross Domestic Product.
- The restaurant industry provides work for 8% of those employed in the U.S.
- Nearly 30% of all retail establishments are eating and drinking places.
- On a typical day in 2000, the restaurant industry should post average sales of \$1 billion.
- Restaurant industry sales have grown at an average annual rate of 7.6% since 1970, when sales totaled \$43 billion.
- The average annual household expenditure for food away from home in 1997 was \$1,921, or \$768 per person.
- In 2000, the restaurant industry's food and beverage purchases should exceed \$130 billion.
- Eating and drinking places ranked third among private-sector industries in terms of employment in 1997.
- Travelers and visitors account for half of the sales at table-service restaurants with average checks of \$25 or more.
- With direct sales of more than \$376 billion, the overall economic impact of the restaurant industry is expected to reach \$785 billion in 2000. This includes sales in related industries such as agriculture, transportation, wholesale trade, and food manufacturing.

Restaurants – The Number One Retail Employer

- More than 11 million people are employed in the restaurant industry with total restaurant employment to be projected to be 12 million by 2006.
- Total annual wages and benefits equal \$40 billion for full-service restaurants and \$35 billion for limited-service (fast food) establishments.
- Almost 6 out of 10 employees in food-service occupations are women (58%), 12% are African-American, and 17% are of Hispanic origin.
- Eating and drinking places are extremely labor-intensive: sales per full-time-equivalent (FTE) employee were \$52,480 in 1998 – notably lower than other industries.
- One-third of all adults in the United States have worked in the restaurant industry at some time during their lives.
- Nearly 3 out of 4 quick-service operators have recently hired – or intend to hire – a former welfare recipient.
- The restaurant industry is an important employer of new workers, providing employment opportunities for persons who are relatively inexperienced or unskilled.

Eating and Drinking Places are Mostly Small Businesses

- Average sales in 1996 were \$550,000 at full-service restaurants and \$517,000 at fast food restaurants.
- Nearly three-quarters of all eating and drinking places had less than 20 employees in 1997.
- Most eating and drinking places are single unit independent operations.
- Per-person checks averaged \$4.58 in 1998.
- Distribution of restaurant customer traffic: Breakfast – 11%, Lunch 37%, Dinner 52%.

Restaurants Provide a Ladder to Management Opportunity

- Nine out of 10 salaried employees at table-service restaurants started as hourly employees.
- Seven out of 10 supervisors in food preparation and service occupations in 1997 were women, 13% were African-American, and 15% were of Hispanic origin.
- The number of African-American owned and women owned eating and drinking establishment firms increased at double-digit rates over the past decade with sales rising dramatically.
- Of the 1.4 million managers of food-service and lodging establishments in 1997, 45% were women, 9% were African-American, and 9% were of Hispanic origin.
- The typical employee in a food-service occupation in 1997 was female, less than 30 years old, single, lived in a household with relatives, lived in a household with two or more wage earners, and worked part-time and averaged 25 hours a week.

The National Restaurant Association's Ongoing Research Reveals

- Median pre-tax income for full-service restaurants (average check per person: \$10 or more) was 4.1% of total sales in 1998.
- Roughly 9 out of 10 table-service restaurant operators raise money for charities or donate food or space.
- Table-service and quick-service restaurant operators report that finding qualified/motivated workers will be their biggest challenge in 2000.
- One out of 5 takeout food customers is a daily user: these daily users represent half of all takeout occasions.
- Saturday is the most popular day to eat out. Monday is the least popular. August is the most popular month.
- Meatless/vegetarian dishes, organic produce, and pan-seared items are "hot" on today's restaurant menus.
- Approximately seven out of 10 table-service operators with access to a personal computer use the Internet and e-mail.

Industry Challenges and Concerns

According to the Michigan Restaurant Association

- The prosperity of the past few years has benefited the restaurant industry by bringing in new customers. The increased business, however, has created more demand for workers in an already diminished labor pool. Finding qualified workers, rising labor costs, and maintaining customer loyalty are major concerns.
- A record number of new people dined out in 1997 feeding the incredible growth of restaurant sales. A flurry of new restaurants were built which saturated existing markets and substantially increased the diversity of dining choices. Customer sophistication rose, as did customer expectations of the dining experience. At the same time, increased competition closed the greatest number of restaurants in history. Increased competition and stagnant or declining sales also drained once-profitable operations.

Industry Trends & Predictions

- Food-service managers will pursue a "Rush to Quality" in order to survive. Quality of experience brings customers back. Quality of employment reduces employee turnover and adds to the quality of the experience. Quality of financial management provides confidence to financial markets and improves vendor relationships.
- Food safety will grow beyond a consumer and media issue into the number one political and regulatory issue in the food industry
- Food-service management will take its place as one of the hottest career tracks. Salaries will skyrocket with manager compensation of \$100,000.00 or more, plus signing bonuses, being the norm.
- 40% of all adults report that meals prepared at a restaurant are essential to the way they live. One half of Americans are cooking fewer meals at home than they were two years ago. Busy parents, older adults who are attracted by buffets and home-cooked dishes, those that are too tired to cook, Yuppies who frequent high priced restaurants as an affirmation of their lifestyle, and adventurous diners who favor flavor over familiarity compose the five categories of frequent diners.

Food Service Positions



Bus Person: The dining room employee who cleans the tables and returns soiled dishes and utensils to the kitchen for cleaning.

Chef: The culinary expert. The chief of the kitchen. Also called the Executive Chef.

Chef de Partie: Chef of a particular kitchen station (i.e. Pastry Chef)

Corporate Chef: Chef in charge of food production for a large corporation

Dish Washer: Kitchen employee who washes dishes, utensils, pots/pans, etc.

Expediter: The person in the kitchen who is responsible for making sure the orders are filled promptly and the quality of the food is acceptable.

First Pastry Cook: Cook who works with the pastry chef

Garde Manager: Chef in charge of cold products

Kitchen Manager: Person in charge of making sure the kitchen is staffed, supplied, and run in a smooth manner

Line Work: The cooking that is done on the line of equipment where the entrees are usually prepared.

Maitre Cuisinier: An honorary title given by France for culinary excellence.

Maitre d': The person in charge of the restaurant dining room

Maitre d'Hotel: The head of the catering department

Pâtissier: Pastry chef

Rounds Cook: A cook who works different stations where needed

Sauté Cook: The cook who sautés on the line.

Short Order Cook: The cook on the line that prepares food that can be cooked quickly.

Sous Chef: The assistant to the chef

Waiter/Waitress: The dining room employee who takes the customer's order and delivers the food.

Wine Steward: Dining room employee in charge of wine

Culinary Glossary



Aging: A term used to describe the holding of meats at a temperature of 34 to 36 degrees F for a period of time to break down the tough connective tissues through the action of enzymes thus increasing tenderness.

A la Bourgeoise: Food served family style. Food is brought to the table in common bowls/dishes from which individuals serve themselves.

A la Carte: Cooking to order as opposed to cooking ahead in large batches.

Au jus: Pan juices created by roasting meat.

Aspic: Clear meat, poultry, or fish jelly

Bake: To cook in an oven

Bard: To wrap meat with bacon or salt pork

Baste: To pour drippings, fat, or stock over food while cooking

Batter: A mixture of flour and water

Bisque: A thick soup puree

Braise: To cook slowly in fat and a little moisture in a closed pot

Broil: To cook by direct exposure to radiant heat

Brochette: Chunks of vegetables or meat cooked on a skewer.

Brulee: Burnt

Canapés: An appetizer prepared on a base such as toast or crackers.

Cappuccino: Espresso coffee and scalded milk

Chimichanga: A savory meat or vegetable wrapped in a flour tortilla and deep-fried.

Cilantro: Coriander leaf

Coddling: Cooking just below the boiling point

Compote: Preparation of fresh or dried fruit cooked either whole or cut and flavored with aromatics

Confectionery: Art of sugar working or candy making

Confit: Meat of pork, goose, duck, or turkey cooked in its fat and keep covered in fat to prevent contact with air.

Coquille: Shell

Crepe: Thin pancake

Consommé: A clarified stock

Coulis: A liquid puree of vegetable or fruit

Croissant: A rich crescent shaped roll of puff pastry or leavened dough

Deep Fry: The process of cooking food by submersion in hot oil or fat

Deglaze: To add liquid such as wine, stock, or water to the bottom of a pan to dissolve the caramelized drippings so that they may be added to sauce for added flavor.

Diced: Cut into small cubes

Drawn Butter: Melted butter

Dredging: To coat with dry ingredients such as flour or breadcrumbs

Dusting: To sprinkle with sugar or flour

Emince: Cut fine or sliced thin

Emulsion: A stable mixture in which one liquid is suspended in globules throughout the other

Entree: In the U.S., the main course. In France, the first course

Espagnole: Basic brown sauce

Escargot: Snail

Farce: Stuffing

Forcemeat: Ground meat mixed with seasonings used for stuffings

Fry: To cook in fat or oil

Ganache: A rich cream made of chocolate and heavy cream

Garnish: Edible ornaments to enhance the appearance or taste of food

Gastronomy: The science and art of fine food and drink

Gumbo: Thick Creole soup thickened with okra or filé powder

Herb Bouquet: A mixture of tied herbs used for seasoning in soups, sauces, and stocks

Hollandaise: emulsified sauce made from egg yolks, butter, and lemon juice

Hors d' Oeuvres: light food eaten as appetizers before the main meal

Infusion: Liquid derived from steeping herbs, spices, etc

Jambalaya: Creole dish of oysters, shrimp, and chicken or ham with rice

Julienne: A cut of meat, poultry, or vegetables which is 1/8 x 1/8 x 2 1/2 inches

Kipperd Herring: Smoked or dried herring

Kosher: Meat sold within 48 hours after being butchered in accordance with Hebrew religious laws. The style of Jewish dietary cooking

Larding: Salt pork strips inserted into meat with a special needle. Used to add flavor and moisture to meat.

Liaison: A binding agent made up of egg yolks and cream. Used for thickening soups and sauces.

Marzipan: A paste of ground almonds, sugar, and egg whites

Medallion: Small round scallop of meat

Minced: Ground or chopped fine

Mise en Place: French term meaning everything is ready up to the point of cooking

Mousse: A sweet or savory dish lightened with beaten egg whites or whipped cream

Papillote: Cooked in foil or parchment paper to seal in flavor

Paprika: Seasoning or coloring agent made with ground dried fruit of various ripe pepper plants

Parboil: Partially cook by boiling for a short period of time

Pasta: General term used to describe any shape of macaroni product or egg noodles

Pan Broiling: Cooking in an uncovered skillet where the fat is poured off during cooking

Pan Frying: Cooking with fat in a skillet

Primavera: A recipe using spring vegetables (i.e. Pasta Primavera)

Poaching: To cook or simmer in liquid

Puree: A preparation made by mashing and sieving certain foods

Ragout: Meat, fowl, or fish cut into pieces of regular size and browned or cooked without coloring, with or without vegetables

Rasher: Thin slice of bacon or a portion consisting of 3 slices of bacon

Roasting: To cook with dry heat

Roux: Heated mixture of flour and butter to be used as a thickener

Sachet Bag: Cloth bag filled with select herbs used to season soups or stocks

Saffron: The pistil of the crocus plant. Used for flavoring or coloring food

Sauté: To cook quickly with a small amount of fat over high heat

Shallots: A vegetable in the onion family with a slight taste of garlic

Sorbet: Ices made from fruit, liqueurs, and/or heavy wines

Soufflés: Sweet or savory dish made with a white sauce, basic flavoring ingredients, egg yolks, and beaten egg whites

Starch: Usually refers to potatoes, rice, or pasta

Steep: To soak in a liquid held just below the boiling point

Stock: Broth in which meat, game, poultry, fish, or vegetables have been cooked

Sushi: Thin sliced raw fish, vegetables, and rice wrapped in seaweed

Taco: A tortilla filled with shredded meat and sauce

Tartare: Minced meat or fish seasoned with salt and pepper and served uncooked

Tempura: Deep fried vegetables or shrimp in light flour batter

Terrine: Boned poultry meat, stuffed and pushed into a symmetrical shape

Tournedos: Slices taken from the middle of the fillet of beef, veal, or venison

Toss: To mix with a rising and falling action

Tripe: The edible lining of stomach (beef)

Truffle: Subterranean fungus

Truss: To bind poultry for roasting with string or skewers

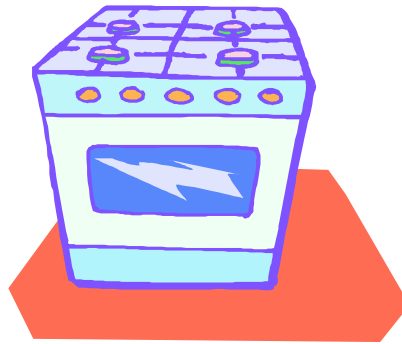
Vinaigrette: Dressing or sauce made of oil, vinegar, and flavoring ingredients

Yorkshire Pudding: A batter made with flour, eggs, salt, and milk that is baked with standing rib roast

Zest: Citrus rind

Food Service Equipment & Utensils

Cooking Equipment



Broiler: Cooks food by direct exposure to radiant heat. An electric element, open gas flame, gas flame on artificial charcoal, and charcoal are typical sources of radiant heat.

Chinese Range: A specialized stove used for cooking with a wok. The stove has a unique water flushing system for removing food spills from the stovetop to a drain.

Clamshell Grill: A griddle that has two cooking surfaces. The food cooks from both sides. Food is placed on the bottom griddle. The top griddle is hinged and lowers onto the food.

Coney Island Grill: A low temperature griddle used to cook hot dogs.

Convection Oven: An enclosed chamber used for baking food in which the heated air inside the chamber is moved with a fan thus decreasing cooking time.

Conveyor oven: An enclosed chamber for baking food in which the food passes through the oven chamber on a moving conveyor belt.

Conveyor Toaster: An electric device for browning bread on both sides by which bread becomes toasted by moving through the machine on a conveyor belt.

Deck Oven: An oven by which food is baked by being placed directly on the oven floor. Often used for cooking pizza. A stacked deck oven is a deck oven in which one deck oven is placed on top of another.

Deep Fryer: A device for frying food in which the food is submerged in hot oil.

Espresso machine: A machine that makes espresso coffee by forcing steam under high pressure through finely ground coffee beans.

Griddle: A flat metal surface on which food is cooked.

Grill: A cooking utensil of parallel bars upon which food is broiled.

Gyro Machine: A vertical rotisserie machine that uses radiant heat (gas, electricity) to cook a pre-formed spicy meat product.

Microwave Oven: A cooking chamber that uses microwave energy to cook food.

Oven: A cooking chamber for baking or roasting food.

Pressure Fryer: A deep fryer with a tight fitting lid that allows pressure to build within the cooking chamber. The higher pressure raises the boiling point of the oil, which results in a higher cooking temperature and shorter cooking time. The lid is equipped with a pressure release safety valve.

Rethernalizer: A device that uses a hot water bath to reheat sealed bags of pre-cooked food.

Rice Cooker: An electric or gas heated kettle with a lid used for cooking rice.

Roast and Hold Oven: An oven that has controls for automatically roasting food to a pre-determined time and temperature and then holds the cooked food at a pre-determined temperature and humidity.

Rolling Grill: A grill that has parallel rolling heated cylinders generally used for cooking hot dogs.

Rotisserie: A device that uses a spit to hold and rotate food around a source of radiant heat.

Smoker: A device that utilizes wood smoke to impart a smoke flavor onto the food.

Steam Kettle: A large vessel by which live steam is injected into an outer jacket which produces heat to primarily cook liquid foods such as soup, sauces, pasta, gravy, etc.

Steamer: A closed cabinet in which food is cooked by being subjected to direct contact with live steam.

Convection: A steamer in which the steam is circulated about the cabinet by means of a fan. The improved circulation decreases cooking time.

Pressure: A steamer with a tight fitting sealed enclosure that allows pressure to build within the cabinet. Increased pressure decreases cooking time.

Salamander: A small broiler used to brown food. Also known as a cheese melter.

Stove/Range: A cooking apparatus that burns fuel (wood, gas, coal) or uses electricity to provide heat for cooking food in various types of pots and pans.

Tilting Skillet: A device similar to a large rectangular griddle with sides and a lid. Heat is usually provided to the cooking surface by means of a steam jacket. A control on the device allows the skillet to be rotated so as to allow cooked food to be poured into containers and to assist in the cleaning process.

Hot Holding Equipment

Baine Marie: A device that uses an open hot water bath into which containers of food are stored.

Chafing Dish / Chafer: A utensil used for keeping food warm at the table. Portable alcohol lamps (Sterno) are generally used to provide the heat source.

Infra Red Heat Lamp: A specially designed lamp that utilizes radiant energy from the infra red light wave spectrum to keep food warm.

Hot Holding Cabinet: A cabinet that uses dry or moist heat for holding hot food.

Steam Table: A table having openings to hold food containers over hot water.

Cold Holding Equipment



Buffet Cold Food Display Unit: A device that relies upon either mechanical refrigeration or ice for maintaining cold food on display below 41 F.

Freezer: An insulated cabinet and mechanical device for storing food at subfreezing temperatures.

Chest: A horizontally oriented freezer unit in which the door or lid opens up toward the ceiling.

Walk-in: A freezer room that is designed for employees to walk into.

Reach-in: A shallow upright freezer unit in which the door opens outward toward the user.

Ice Machine: A device that makes ice cubes.

Ice Bin: A box used to store ice.

Rapid Cooling Equipment:

Blast Chiller: A refrigeration unit using high speed air to cool hot foods to less than 41 F in 4 hours or less.

Tumble Chiller: A refrigeration unit that uses agitated ice water to cool hot foods to less than 41 F in 4 hours or less.

Refrigerators: A mechanical device that maintains food in a cool condition.

Reach-in Cooler: A shallow upright refrigeration unit.

Walk-in Cooler: A refrigerated room that is designed for employees to walk into.

Salad/Sandwich Prep Tables: A refrigerated unit divided into two working areas. The top portion includes a hinged lid which covers small pans of salad and/or sandwich prep item ingredients. A cutting board or work surface completes the top of the unit. The lower portion is a reach-in refrigeration unit for storing larger quantities of the ingredients.

General Equipment & Fixtures



Blender: An electric appliance for grinding or mixing to produce a uniform mixture or a fine suspension of food.

Bus Cart: A portable cart for transporting soiled tableware to the dish washing area.

Carbonator: A device used to blend carbon dioxide with water to make a carbonated beverage.

Culinary Sink: A sink used for food preparation.

Dumpster: A large receptacle for storing garbage outside of the building.

Dunnage Rack: A rack used to store food containers off of the floor.

Food Shield: A device used to protect food on display from customer contamination (sneeze guard)

Floor Mixer: A large commercial food mixer that stands on the floor.

Garbage Grinder: A device used to chop or otherwise reduce the size of food waste particles before being flushed down the drain.

Grease-bin: A container used to store waste greases and oils for re-cycling.

Hand Wash Sink: The sink designated for employee hand washing.

Juicer: An appliance used to extract juice from fresh fruits and vegetables.

Meat Slicer: An electric appliance device used to cut meat, cheese, vegetables, and other foods into thin uniform slices.

Prep Table: Work table upon which food is prepared.

Proofing Cabinet: A cabinet having a warm temperature for rising bread dough.

Salad Shredder: An electrical appliance used to shred lettuce, cabbage, and other vegetables.

Speed Rack: A wheeled cart used for moving pans of food about the establishment.

Spit: A slender pointed rod for holding meat over a fire.

Tray Slide: A rail system for customers to use to slide their tray in a cafeteria line.

Trash Compactor: A mechanical device used to reduce the volume of garbage and trash by compressing it into a smaller size.

Ventilation Hood: A mechanical system designed to remove smoke, grease particles, condensation, and odors from the cooking area.

Utility Sink: A sink used to dispose of mop water and other wastewater in the establishment.

Utensils



Baking Pan: A flat shallow pan used for baking food.

Basting Brush: A brush that is used to spread drippings, fat, or stock over cooking food.

Basting Spoon: A large spoon that is used to pour drippings, fat, or stock over cooking food.

China Cap: A funnel shaped colander.

Cleaver: A butcher's implement for cutting animal carcasses into pieces.

Colander: A perforated utensil for washing or draining food.

Cutlery: Implements for cutting food.

Cutting Board: Work surface upon which food is placed for cutting.

Double Boiler: A cooking system consisting of two nested pots. The outer pot sits on the stove and contains boiling water while the inner pot contains the food to be cooked.

Fry Pan / Skillet: A pan that is used to fry, pan broil, and braise food.

Hotel Pan (also Full Pan): A stainless steel or plastic food pan measuring 20.75"L x 12.75"W x 4" deep

Half Pan: 10 3/8"L x 12.75"W x 4" deep

Quarter Pan: 12.75"L x 5"W x 4" deep

Shallow Pans: Same dimensions, except only 2.5" deep

Ingredient Bin: A storage container that holds recipe ingredients such as flour, sugar, corn meal, etc.

Ladle: A bowl-shaped utensil with a long handle primarily used to dispense liquid food such as soups and sauces.

Lettuce Crisper: A bin, stored in the cooler, that is used to keep lettuce fresh

Lexan Pan: Food storage containers made of lexan plastic

Portion Scale: A small scale used to weigh recipe ingredients.

Sauce Pan: A small deep cooking pan with a handle.

Scoop: A utensil with a handle for dipping soft or loose food.

Slotted Spoon: A spoon that has slots cut into the bowl for the purpose of allowing juices to drain away from the scooped solid food product.

Spatula: A thin flat instrument used especially for spreading or mixing soft substances, scooping, or lifting.

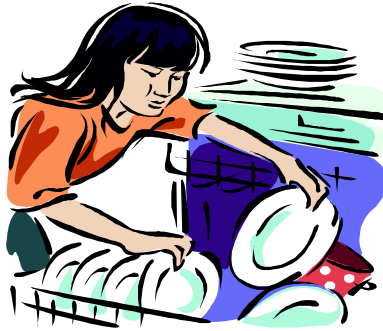
Stock Pot: A large pot generally used to prepare soup stock.

Tongs: A grasping device consisting of two pieces joined at one end by a pivot or hinge.

Whip: A kitchen utensil generally made of coiled wire with a handle used for mixing food.

Wok: A bowl shaped cooking utensil used to prepare Chinese food.

Dishwashing Equipment



Mechanical Dish Machines

Hot Water

Single-tank, stationary rack, dual temperature machine:

1. Has one wash water tank. Rinse water is supplied fresh.
2. The rack of dishes is manually placed into the machine where it is maintained in a stationary position throughout the wash cycle.
3. The wash water temperature is 150 F. The Rinse temperature is 180 F

Single-tank, stationary rack, single temperature machine:

Same as above except the wash water is 165 F. The rinse water is 165 F

Single-tank conveyor machine:

1. Has one wash water tank. Rinse water is supplied fresh.
2. The dish rack automatically moves through the machine on a conveyor.
3. The wash temperature is 160 F. The rinse temperature is 180 F

Multi-tank conveyor machine:

1. May have a pre-wash water tank, a wash water tank, and a pre-rinse water tank. The final rinse is fresh water.
2. The dish rack automatically moves through the machine on a conveyor.
3. The wash water temperature is 150 F. The pumped rinse water temperature is 160 F. The final rinse is 180 F.

Chemical

Chemical sanitizing may be accomplished in the above machines. The wash water temperature must be at least 120 F. The chemical sanitizing rinse water temperature must be at least 75 F. Chemical test kits are required to determine minimum sanitizer concentrations.

Three Compartment Sink: A piece of equipment consisting of three sink wells for manual washing, rinsing, and sanitizing. Sanitizing can be accomplished using either hot water (170 F) or a chemical sanitizer.